



George F. Jones
Director

April 4, 2019

Paulding County Board of Commissioners

Department of Transportation

Watson Government Complex

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«AddressBlock»

Re: Responses to Open House Comments for PI#: 0013700, Paulding County, County Road (CR 473)/ Cedarcrest Road from Harmony Grove Church Road to Cobb County Line

Dear Property Owner,

Thank you for your comments regarding the proposed project referenced above. We appreciate your participation and all of the input that was received as a result of the *January 24, 2019 Public Information Open House*. Every written comment received and verbal comment given to the court reporter will be made part of the project's official record.

A total of **228** people attended the open house. Of the **75** respondents who formally commented, **11** were in **support** of the project, **34** were **opposed**, **7** were **uncommitted**, and **23** expressed **conditional support**.

The attendees of the open house and those persons sending in comments within the comment period raised the following questions. The Paulding County Department of Transportation (PCDOT) has prepared this one response letter that addresses all comments received so that everyone can be aware of the questions raised and the responses given. Please find the comments summarized below (in *italics*) followed by our response. In instances where numerous questions or comments were received regarding similar subject matter, those items were combined to aid the reader in their review of the expressed concerns.

1. "*State Route (SR) 92 from the crossroads to [US] 41 needs to be widened not Cedarcrest.*"

Response: SR 92 is currently under design and right of way for the widening of the roadway is currently being purchased. The project is currently scheduled for construction in fiscal year 2026.

The proposed project will provide additional traffic lanes on Cedarcrest Road in this project area to increase capacity and address future congestion.

The year 2018 daily traffic volume along Cedarcrest Road is approximately 14,850 vehicles per day (vpd) and is expected to increase to 16,650 vpd by year 2024 and to 24,800 vpd by year 2044. These 2018 traffic volumes correspond to a deficient traffic operation or level of service (LOS) E. With no capacity improvements, traffic operation is expected

to deteriorate to LOS F (failing operation) by the year 2024 and would continue to worsen. Additionally, there were approximately 200 reported crashes along the corridor in the last five years including three fatal crashes. The fatal crash rate along Cedarcrest Road is much higher than the statewide averages for comparable roadways. Therefore, roadway and intersection improvements along Cedarcrest Road including widening to a four-lane facility is needed to provide acceptable and safe operations along Cedarcrest Road.

2. Four comments/questions were received related to the need and purpose for this project and are summarized below:

“Improve the intersections where the traffic gets backed up, a four-lane road will not improve the traffic back up.”

“There is no need to widen Cedarcrest, the only time there is traffic is in the morning and afternoon.”

“Four lanes from Cobb County to Graves Road makes sense but traffic levels don’t justify a four-lane road though Bentwater.”

“This project is a waste of funds when there are other areas that have a real need.”

“Where is the demand for this project from the residents?”

Response: Traffic volumes along Cedarcrest Road from Harmony Grove Church Road to the Cobb County Line has been reviewed and analyzed to recommend the proposed improvements including at Bentwater Drive.

Due to current and projected traffic volumes, crash data, and safety concerns, the widening of this section of Cedarcrest Road is warranted through the study area. The widening to a four-lane facility is proposed to restore acceptable and safe operations.

The project team's initial assessment combined with feedback received through public and stakeholder outreach, including federal, state, and local agencies, has identified the needs to provide additional traffic lanes on Cedarcrest Road to increase capacity and address future congestion. The proposed project is looking at improvements on Cedarcrest Road between Harmony Grove Church Road and the Cobb/Paulding County Line that are needed long term. The intent is to provide a safe and reliable facility that would operate acceptably into the future design year of 2044. The purpose of this project is to provide transportation improvements that address these needs.

3. Three general comments related to roundabouts were received and are summarized below:

“Roundabouts are not the safest choice; there should be traffic lights instead.”

“I have been told that not only is this type of intersection a high risk for accidents, but the accidents that occur are more likely to be high impact.”

There were many accidents when there were yield signs at [the Cedarcrest and Graves Road] intersection and a roundabout would cause even more confusion.”

Response: A modern roundabout is a type of circular intersection characterized by channelized approaches, yield control at entry, counterclockwise circulation around a central island, and geometric features that create a low-speed environment. Roundabouts have been demonstrated to provide a number of safety, operational, and other benefits when compared to other types of intersections. Specifically, they have fewer conflict points, lower speeds, and have been found to reduce crashes, traffic delays, fuel consumption, and air pollution.

Traffic signals are considered initially as an operational improvement for un-signalized intersections, but they may not address the safety concerns and objectives of a project. Traffic signals do not eliminate crossing movements nor force drivers to slow down through the intersection, leaving the potential for high speed, angle crashes. A roundabout eliminates all crossing paths and restricts speeds of traffic to address the safety concerns at these intersections. Reducing the speed doesn't cause congestion; instead it creates a more stable flow of traffic. Roundabouts create fewer delays than traffic signals due to the reduced number of stops, so they are a viable solution for both peak and non-peak hours. Modelling and analysis completed for this project indicate that the roundabouts will operate efficiently at these locations.

Roundabouts have been identified as one of nine proven safety countermeasures to reduce intersection crashes by the Federal Highway Administration (FHWA). The installation of roundabouts in comparison to traditional crash reduction countermeasures, such as the installation of traffic signals, has resulted in a greater reduction in crash frequency, and in many instances, better operational efficiency at intersections. Roundabouts are generally navigated at slower speeds, which correlate with lower impact, less severe crashes. A roundabout also presents fewer conflict points than a traditional intersection, resulting in fewer collisions.

4. *“Turning left onto Cedarcrest Road, from Highcrest Road, is very challenging during peak traffic hours. This problem will be compounded by the proposed project, the increase in traffic from vehicles making a U-turn and the increased traffic from the additional lanes. There needs to be a traffic light or roundabout.”*

Response: Intersection improvement options, including a roundabout are being considered at this location. Factors being considered in the intersection evaluation include traffic volumes at this intersection, the vertical roadway geometry in the vicinity of the intersection, and the presence of a nearby stream and bridge structure.

Other improvements are also proposed to improve the operations and maneuverability at this intersection. For example, the addition of dedicated turn lanes and a wide refuge median to aid and enhance the ability to make a left turn out of Highcrest Drive onto Cedarcrest Road. By providing a refuge, drivers will be able to comfortably use the median

to perform a two-stage crossing, allowing drivers to focus on one direction of traffic at a time.

5. *“Concerned about the removal of the red light at the Cedarcrest and Graves Road intersection and for a roundabout at this intersection. Please leave the red light and add turn signals.”*

Response: Several intersection improvement options including a traffic signal and a roundabout were considered at this location. Based on the analysis, the roundabout is expected to provide the highest benefit at this intersection including desirable and safe operations.

6. *“Install a roundabout at Carl Sanders Drive and Cedarcrest Road and put a Traffic light at Highcrest Drive to help slow traffic.”*

Response: Several intersection improvement options including a roundabout were considered at this location. A roundabout option was ruled out based on the side street traffic volumes at this intersection.

7. *“The roundabout at Bentwater Drive is unnecessary, the traffic is fine in this section”*

Response: Several intersection improvement options including a traffic signal and a roundabout were considered at this location. Based on the analysis, the roundabout is expected to provide the highest benefit at this intersection including desirable and safe operations.

8. *“People may try to avoid merging into the roundabouts at Bentwater Drive and Graves Road via Fairway View Crossing. It would impact the residents along that road as well as the Bentwater County Club.”*

Response: Based on the traffic analysis the roundabouts at Bentwater Drive and Graves Road are expected to operate safely and at a desirable level of service and low levels of delay. Therefore, traffic on Bentwater Drive and Graves Road is not expected to divert onto other surface streets including Fairway View Crossing.

9. *“Concerned with the amount of traffic being funneled into the North Springs Drive/Satterfield intersection heading east toward Hwy 41. Cars will be coming from Arthur Hills, North Springs Way, North Springs Drive, and Satterfield. Put a turn lane at North Springs Way.”*

Response: A traffic study has been conducted for this project corridor analyzing the effects of all of the proposed intersection treatments and their effects on traffic along the corridor. The analysis has shown that the U-Turn at the intersection of North Springs Dr/Satterfield Dr will be able to operate at an acceptable level of service with the additional traffic from upstream/downstream RCUT intersections.

10. *“Can you remove the R-Cuts at Arthur Hills/Fairway Drive intersection? Then you would have U-turns/lefts turns at two instead of one intersection, reducing additional congestion at the North Springs/Satterfield intersection and the Bentwater Drive Circle.”*

“The R-cuts are really cumbersome and will have a huge impact on the school buses and public safety.”

“Not allowing people to make a left-hand turn but rather forcing them to make a U-turn will increase the likelihood of accidents at the U-turn.”

Response: The Restricted Crossing U-Turn (RCUT) is an innovative intersection design that improves safety and operations by changing how minor road traffic crosses or turns left at a major road. The RCUT does not change any of the movements that are possible from the major road. At a RCUT, drivers stopped at the minor road waiting to cross or turn left no longer must navigate a complex intersection of two directions of traffic often traveling at high speed.

The use of raised medians and RCUTs instead of a center dual left-turn lane has been shown to reduce crash frequency and severity compared to crossing multiple lanes of traffic, and queuing in the center lane to wait for traffic to clear.

The use of RCUTs is in many cases more efficient and decreases delays compared to traffic signals. For example, allowing only right turns and proceeding to the nearest U-turn crossover could be faster than waiting on the signal to change to a green phase. Right-turn only and use of RCUTs in lieu of crossing multiple lanes of traffic to make a left turn typically reduces crash frequency and severity.

In response to the specific comment regarding school buses and public safety vehicles, the project design in proximity to RCUT locations will take the safe operation of these vehicles into consideration. RCUTs can and do function safely in areas frequently used by buses and other larger vehicles.

11. *“I am concerned with the right-hand turn at North Springs Way to get onto Hwy 41. One would have to drive a block and make a U-turn. Can there be a roundabout at North Springs Drive?”*

Response: Roundabouts are considered at all proposed signalized intersections. When considering a roundabout, a variety of alternatives are evaluated to determine whether or not a roundabout is the most appropriate alternative. The roundabout validation process begins with a planning level assessment to evaluate the suitability of constructing a roundabout at an intersection, which includes considerations such as safety, operations, and aesthetics. A feasibility study is prepared for all proposed roundabouts. The objective of the feasibility study is to document the decision-making process which demonstrates that a roundabout is (or is not) the most appropriate intersection control form. While the scope of the feasibility study will vary depending on project conditions and the type and complexity of the proposed roundabout, they generally include a safety assessment, operational analysis, cost comparison of all potential designs. If the analyses determine that

a roundabout is warranted, then a preferred roundabout design is recommended. As a result of feedback presented by the public at the PIOH, use of a roundabout at this intersection will be further evaluated.

12. *“Cedarcrest Road from Shelton Elementary to Dallas-Acworth Hwy is a bigger traffic problem.”*

Response: This section of Cedarcrest Road is a long-range project for PCDOT, and it has been identified as a needed project within the County’s Comprehensive Transportation Plan (CTP). Should you have further questions regarding the project, please contact the Paulding County Engineering Division Manager Kathy Stallard or the Paulding County Department of Transportation Director George Jones at 770-445-4759.

13. *“The bridge is a positive since we can have flooding at those location during heavy rains.”*

Response: Thank you for your comment.

14. *“I would like to see blinking lights in addition to signage for pedestrians trying to cross.”*

“Please make sure that we do not lose our sidewalks.”

Response: PCDOT recognizes that pedestrian crossings throughout the project are necessary to allow for the safe crossing of the roadway. All crossing treatment designs applied to specific locations should be guided by a traffic engineering study of the existing conditions and intended function of the crossing. All crossings will be compliant with the Americans with Disabilities Act (ADA) requirements and will include pedestrian signals with accessible push button, curb ramps with detectable warnings, and roadway striping with cross hatching.

Sidewalks are included as a part of the project.

15. *“Could you increase the lengths of all turn lanes, center and sides, versus widening the road?”*

Response: A widened roadway will increase capacity for motorists and reduce congestion. While intersection improvements are of importance to the project design, they do not adequately address the long term traffic projections and the need for mid-block improvements. The addition of dedicated right-turn and left-turn lanes will improve operations and is expected to improve safety and decrease the number of accidents. The design of a median will provide adequate geometry for U-turns to be executed safely.

16. *“If the Cedarcrest has to be widened please make sure the lanes stay as narrow as allowed by GDOT as to keep 18-wheelers out.”*

“If Cedarcrest gets widened all the trucks will come through our neighborhood.”

Response: The typical section proposed for the roadway widening is 11-foot wide travel lanes. In addition, it is the goal of Paulding County to reduce heavy truck traffic within the corridor through the use of other measures. In September 2018, Paulding County removed Cedarcrest Road from the County Truck Route system, limiting the volume of medium and heavy trucks that can utilize this corridor.

17. *“The construction from this would be very hazardous to the community.”*

Response: When a project will intersect an existing residential community, PCDOT will often meet with the residents of the affected communities and discuss their concerns and vision for the project. Such meetings have taken place for this project and include the PIOH effort. In addition, as part of the environmental process, impacts to residents, as well as undeveloped land, businesses and the natural environment, are all carefully considered. All efforts are made to avoid impacts, where possible. Any impacts that cannot be avoided would be addressed with strategies to mitigate or lessen negative effects.

18. *“There should have been a speaker or presentation at the very beginning.”*

Response: A PIOH is an informal meeting following an open house format which generally lasts two to three hours. The purpose is to inform the public of a project that is proposed in their area, gather information from the public, and to receive comments from the public about the proposed project. The structure of the open house is an informal discussion format in order to accommodate arrivals and departures during an established timeframe. As a result, there is typically no formal presentation.

The open house handouts and layouts are made available the day of the open house and on the GDOT website, www.dot.ga.gov and click on Public Outreach from the Information Center dropdown menu at the top right side of the page. In addition, the handout provided for this meeting identified other locations where the public could access the displays after the meeting had occurred. That information remains available to the public for the duration of the comment period.

19. *“The proposed plan is going to make things very difficult and expensive for us to access our property. We are looking at an additional 2-3 miles (at least 20 per week) of extra driving.”*

Response: The individual that provided this comment is concerned about the change in driving pattern as a result of the raised median associated with the project in proximity to their property. A raised median will be installed on a corridor based on the existing and projected traffic volumes and crash history. The Federal Highway Administration (FHWA) encourages the addition of medians because they can increase motor vehicle safety. For example, raised medians are known to provide the following benefits:

- Reduce motor vehicle crashes by 15%,
- Decrease delays (>30%) for motorists,
- Increase roadway capacity (>30%),
- Reduce vehicle speeds on the roadway, and

- Provide space for landscaping within the right-of-way

That being said, the project design team will review the current median opening locations based on the recently approved traffic projections and adjust the median opening locations accordingly.

20. *“Add more median breaks”*

“Adding a median down the middle of Cedarcrest will only make turning out of Cedarcrest neighborhoods even more difficult.”

“Concerned that the locations of the U-turns are not wide enough for the large variety of vehicles that will be forced to make them.”

“Concerned about having to cross 2 lanes to get down to make a left turn lane/U-turn.”

Response: Median openings are spaced strategically to reduce the possibility of safety and operational issues. Roads with the highest amount of traffic, typically state routes and county roads, take first priority when determining the need for a median opening. Due to the numerous roads that intersect the corridor, especially locations where roads are spaced less than 1,000 feet apart, it is not possible to provide median openings at all side roads. Upon further review of the project and input from the public, additional median opening could be considered. Any change in design or local traffic conditions may allow for reconsideration of the placement of median openings.

The left-turn/U-Turn locations that are proposed along the corridor adhere to design standards and specifications for median openings. Additionally, multiple left-turn, U-Turn, and roundabout locations have been proposed along the corridor which can many opportunities for drivers along Cedarcrest Road to turn around.

21. *“Between North Springs Drive and Harmony Grove Church Road please take more of the curve (at Cedarcrest Road) out of it to make it safer.”*

“I would like to see the road shift to the north coming out of the s-curve, between Harmony Grove Church Road and North Springs Drive.”

Response: Sight Distance is the distance from which an object at eye level remains visible to an observer. This would include Stopping, Decision and Passing Sight Distances. An existing facility with sight distance issues may be redesigned to conform to current design standards and provide adequate visibility. The curve noted in this comment has been evaluated and determined to have sight distance deficiencies. The project as currently proposed will improve this condition and provide for a safer transportation corridor.

22. *“There needs to be a light at Vine Creek Drive.”*

Response: Requests for traffic signals come to PCDOT from a wide variety of sources. Elected officials responding to their constituents will often request that we evaluate an intersection for a traffic signal. Requests may also be received directly from concerned citizens. All inquiries will be investigated to determine if a signal or some less restrictive improvement should be implemented.

Traffic signals have been proposed based on the guidelines set forth by the FHWA's *Manual on Uniform Traffic Control Devices* (MUTCD). The criteria needed to warrant a traffic signal is based on such factors as traffic volumes, delays, correctable crash history, and roadway types. A traffic study has been conducted for this project corridor and traffic signals have been proposed based on the results of the analysis and the guidelines of the MUTCD.

23. *"The concrete center-median at the entrance of Bentwater subdivision needs be removed."*

"Bentwater Drive should not have access to Cedarcrest unless it is right in and out only."

Response: The island proposed on Bentwater Drive, at the entrance of the Bentwater subdivision is a required design component for the roundabout called a "splitter island." According to the *NCHRP Report 672: Roundabouts: An Informational Guide*, splitter islands are necessary to provide refuge for pedestrians, control speeds, guide traffic into the roundabout, provide a physical separation between entering and exiting vehicles, and deter wrong-way movements.

24. *"Will I be able to get an RV through the roundabouts?"*

Response: Consistent with the current design policies of GDOT, roundabouts are designed to accommodate standard-sized passenger vehicles, as well as buses in urban areas and single-unit trucks in rural areas. These vehicles can be accommodated within the circulatory roadway without tracking over the truck apron.

25. *"What percent of cars use Cedarcrest as a detour while SR 92 is being widened? Why not wait for SR 92 to be complete to determine if this is necessary?"*

Response Currently, SR 92 is scheduled to begin construction in FY 2026. This widening project for Cedarcrest Road is scheduled to begin construction in FY 2023. If both projects stay on schedule, the construction of Cedarcrest Road will nearly be completed once SR 92 widening begins.

26. *"Where will the Bentwater monuments go?"*

"Keep the entry ways the same, just move them back from the widening."

"Will there be compensation for Bentwater community?"

Response: These monuments will be setback as-is for the proposed roadway improvements.

Land acquisition for transportation purposes is strictly governed by numerous state and federal laws and regulations. Since it is not appropriate to discuss individual impacts and compensation in this format, and without appraiser inspections and reports having been performed, PCDOT will contact property owners who submitted comments regarding right-of-way acquisition processes and procedures. Should you have further questions regarding this process, please call the Paulding County Engineering Division Manager Kathy Stallard or the Paulding County Department of Transportation Director George Jones at 770-445-4759.

27. *“Protective fences should be put up to separate my property from the road during construction so that people don’t walk in my back yard. It is a safety concern for my dogs.”*

“A guardrail is needed to protect the homes in Cedar Crest Village, at the intersection of Graves Road and Cedarcrest Road.”

Response: Improvements like the ones requested in these comments are handled on an individual basis. Since it is not appropriate to discuss individual impacts and compensation in this format, and without appraiser inspections and reports having been performed, PCDOT will contact property owners who submitted comments regarding right-of-way acquisition processes and procedures.

The warranting of guardrail investigates criteria that includes the clear zone, slope of roadway, embankment height, and roadway curvature to determine if a location would be a suitable candidate for guardrail installation. All locations on the project limits will be investigated to determine the warranting of guardrail.

28. *“It will be unsafe for people to cross a four-lane road with roundabouts.”*

Response: In many cases a roundabout can offer a safer environment for pedestrians than a traffic signal because the pedestrian crossing at a roundabout is reduced to two simple crossings of one-way traffic moving at slow speeds. A pedestrian crossing at a traffic signal still needs to contend with vehicles turning right or left on green, vehicles turning right on red, and vehicles running the red light. The latter of these potential conflicts occur at high speeds and often result in injuries or fatalities to pedestrians.

However, pedestrians are the most vulnerable users of a roundabout. Thus, an important function of lighting at a roundabout is to ensure that any pedestrian in the crosswalk is visible to vehicles approaching, entering, and exiting the roundabout. Roadway lighting also provides increased safety to cyclists, at the approach to the roundabout where they begin to mix with vehicular traffic and throughout the circulatory roadway where they may be integrated into the traffic stream.

29. *“There is no policing once you get to Paulding County. Therefore, there is nothing to keep people from speeding. If the road is widened, people will go even faster.”*

“Lower the speed limit on Cedarcrest Road.”

“Speeding is the main concern. We need more stoplights to slow down traffic, especially around the curve (at Cedarcrest Road).”

“Permanent anti-speeding measures and increased law enforcement.”

Response: Although enforcement of the speed limit may not be within the scope of a project, the need to reduce the frequency and severity of crashes is one component of the need and purpose of a project. Appropriate design speeds and potential intersection improvements may be considered where they will reduce crashes, improve mobility and relieve traffic congestion. For specific concerns about speed limit enforcement, please contact the local law enforcement agency.

The existing posted speed limit along Cedarcrest Road is 45 miles per hour (mph), and will be maintained at 45 mph and the design speed used for the project is 45 mph. There are two proposed roundabouts along the corridor, and one of the safety benefits a roundabout is that the geometric design features naturally encourages speed control. Drivers will adjust their speeds in order to maneuver around the roundabouts. This will provide less opportunity for drivers to be able to travel at higher speeds while driving the length of the corridor.

30. *“Night time construction activity should be limited.”*

Response: PCDOT will determine work hour restrictions. Unless there are extenuating circumstances, work schedules can usually accommodate requests to avoid construction activities on weekends and evenings.

31. *“Keep the trees and landscaping.”*

Response: PCDOT will strive to identify and preserve and/or replace the trees along the corridor; however, transportation projects generally requires that features that are not considered crashworthy within the clear zone be removed. The clear zone is a recovery area for drivers to regain control of their vehicle if they were to leave the roadway, and for safety concerns, it should be free of trees and other hazards. This project will include landscaping as a part of the project.

32. *“The noise from a four-lane road.”*

Response: During the design phase, a Noise Study will be completed and noise impacts will be determined. The results from the study may propose mitigation, such as the construction of noise walls; however, before any final decisions are made concerning noise

abatement, PCDOT will communicate directly with the affected property owners and ensure that a majority agree on a proposed solution.

33. *“Widening the road will change the “face of Bentwater.” This will most likely lower property values, not something the people of Bentwater signed up for.”*

Response: Generally speaking, real estate market trends drive real estate values. Although property values depend on many factors, it is believed that transportation improvements typically create a net positive benefit for the community at large.

34. *“There have been very few, if any accidents at these intersections that would require these types of changes.”*

Response: The need to reduce the frequency and severity of crashes is one component of the need and purpose of a project. Additionally, appropriate design speeds and potential intersection improvements may be considered where they will reduce crashes, improve mobility and relieve traffic congestion.

35. *“Are school buses going to stop all four lanes of traffic to let the students off to cross both lanes of traffic?”*

Response: While this question is beyond the scope of the proposed action, it should be noted that, consistent with current state law (effective July 2018), if there's either a concrete or grass median, or a turn lane, drivers traveling in the opposite direction do not have to stop for buses that are loading and unloading passengers. However, there is some confusion currently on correct interpretation of this law's enforcement and individuals are encouraged to contact their local law enforcement for clarification.

36. *“There are major residential roads in Cobb (Mars Hill and Kennesaw Due West) that carry a high traffic volume but are not four-lanes.”*

“Are there any traffic control plans to ensure the safety of students, parents, and staff trying to exit Shelton Elementary?”

“Harmony Grove Church leading to the North Paulding Campus needs additional lanes. The traffic is consistently backed up from Harmony Grove Church Road to Seven Hills Boulevard.”

“The route to Sammy McClure Sr. Middle School is desperate for improvement.”

“Would like to see about having the sidewalks finished on Graves Road connecting both ends of Bentwater. This is a high walking/running area with no safe sidewalks or lights.”

“Why is Cedarcrest a priority over Harmony Grove and North Paulding High School?”

Response: While these comments involve improvements that would be outside the limits of the evaluation associated with this project, this information has been provided to Paulding County's Department of Transportation for further consideration.

Again, thank you for your comments. Should you have further questions, comments or concerns, please call the Paulding County Engineering Division Manager Kathy Stallard or the Paulding County Department of Transportation Director George Jones at 770-445-4759.

Sincerely,



George Jones
Director of Transportation
Paulding County Department of Transportation

GJ/KR-epei

cc: Kathy Stallard, Paulding County Engineering Division Manager
PDF for Project File